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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.               | CONFIRMATION NO. |
|---|-------------|----------------------|-----------------------------------|------------------|
| 09/842,051  | 04/26/2001  | Masahiko Miyamoto    | 03409.0066                        | 6514             |
| 22852   | 7590        | 07/25/2005           |                                   |                  |
| FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER<br>LLP<br>901 NEW YORK AVENUE, NW<br>WASHINGTON, DC 20001-4413 |             |                      |                                   |                  |
|   |             |                      | EXAMINER<br>PASSANITI, SEBASTIANO |                  |
|   |             |                      | ART UNIT<br>3711                  | PAPER NUMBER     |

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 09/842,051             | MIYAMOTO, MASAHIKO  |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Sebastiano Passaniti   | 3711                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on see detailed Office action.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,4,6 and 12-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6 and 12-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This Office action is responsive to communication received 05/09/2005 –  
Amendment.

Claims 1, 3, 4, 6 and 12-15 remain pending.

Following is an action on the MERITS:

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all  
obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 12, 14 and 15 are rejected under 35 U.S.C. 103(a) as being  
unpatentable over Yim in view of Thomson, Lawton, Gordos, Rozmus and Doran. Yim  
differs primarily from the claimed invention in that Yim does not show a club of the  
wood-type. The art is replete with examples wherein invention is extended to include  
clubs of the iron-type, putter-type and wood-type, as these are all clubs that are  
commonly employed by a golfer. Note, for example, the patents to Rozmus (col. 2,  
lines 37-42), Gordos (Figures 1, 4, 6) and Doran (Figures 1, 2, 7, 14), each of which  
shows that the specific teachings disclosed may benefit golfers when using any one of a  
putter, iron or wood style club. In view of the patents to Gordos, Rozmus and Doran, it  
would have been obvious to modify the device in the cited art reference to Yim by  
extending the Yim teachings to include other types of club heads that are routinely used  
by a golfer, the same being obviated by the prior art of record. With respect to the

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remainder of the claimed limitations, the patent to Yim shows a face surface (6) with an upper portion (8) and a lower portion (7) separated by an imaginary boundary line, said face surface being free of a face surface portion at the boundary line with the exception of the upper and lower portions, as required by claim 1. The upper and lower portions clearly contact one another at the boundary line, as required by claim 14. In addition, the upper and lower portions are in contact across the entire face surface (from heel to toe) at the boundary line, as required by claim 15. Yim notes that the continuity between the upper and lower portions enables the golfer to make the most use of the sweet spot area regardless of the type of stroke used (col. 2, lines 1-3 and col. 2, lines 45-61). Yim differs from the claimed invention in that Yim does not detail the specific roll radius for each of the upper portion. Note, insofar as the lower portion, Yim shows a flat or planar face and therefore meets the claimed limitation that the lower portion must have a roll radius of 310 mm or greater. Thomson shows a roll radius of at least a portion of the upper face section being about 0.700 inch, which meets the claimed limitation requiring a roll radius of 305 mm or less for the upper portion. Thomson recognizes that this roll radius creates a desirable soft feel to the golfer. See col. 2, line 61 through col. 3, line 6 in Thomson. In addition, Lawton shows a curved surface for the upper portion of a face section of a golf putter in which the radius is generally the same as the radius of a golf ball (7). Note, even though Lawton does not give a specific dimension for the roll radius, relying on the fact that the radius is described as being the same as the radius of a golf ball and considering that a USGA golf ball has a radius of 0.84 inch, it is clear that the roll radius for the upper portion of the face in Lawton

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likewise meets the claimed limitation of an upper portion having a roll radius of 305 mm or less. Lawton notes that the curvature of the face avoids "crowding" of the ball towards the ground. In other words, the ball will be allowed to overspin in an unobstructed manner. See page 1, col. 1, lines 14-16 and col. 2, lines 70-74 in Lawton. In view of the patents to Thomson and Lawton, it would have been obvious to modify the device in the cited art reference to Yim by shaping the roll radius (R32) with a roll radius of 305 mm or less, the motivation being to create desirable overspin.

Claims 4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yim in view of Thomson, Lawton, Gordos, Rozmus, Doran and Reuter. Yim in view of Thomson, Lawton, Gordos, Rozmus and Doran has been discussed above. To have further modified the device in the cited art reference to Yim by fabricating the putter with a hollow metal construction to help redistribute weight and to take advantage of convenient casting techniques for the manufacture of the head would have been obvious in view of the patent to Reuter, which shows it to be old in the art to fabricate a club head putter as a hollow metal article in order to reduce the weight of the head. See col. 1, lines 48-60 in Reuter.

Claims 1, 3, 4, 6 and 12-15 STAND rejected under 35 USC 103(a) as being unpatentable over Werner in view of applicant's showing of prior art (labeled as Comparative Example 7 – Table 1, Page 9). Werner shows the underlying theme of applicant's claimed invention and includes a wood-type club head having a face divided into upper and lower portions, with the roll radius of the upper portion being less than the roll radius of the lower portion. Reference is made to Figure 8 in Werner and the

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discussion in column 9, lines 31-51, wherein Werner details that the lower part of the face defines a flattened portion (34), while the upper portion is defined by a curvature (roll). As a matter of simply referencing the manner in which Werner is most closely related to applicant's claimed invention, note that impact point (32) in the Werner patent would appear to correlate to point "SS" shown in applicant's Figure 1. Werner differs from the claimed invention in that Werner does not show the precise, claimed radii for the face, specifically a roll radius of 305 mm or less for the upper portion and a roll radius of between 310 mm or more for the lower portion. The applicant has provided a Comparative Example 7 that teaches an upper roll radius of 310 mm and a lower roll radius of 356. Though the applicant indicates the Comparative Example 7 had an insufficient effect despite having a compound curvature, the example nonetheless shows that the claimed upper and lower roll radii are well-known. In view of the prior art provided by the applicant, it would have been obvious to modify the device in the cited art reference to Werner by incorporating a roll radius of between 305 mm or less for the upper portion and a roll radius of between 310 mm or more for the lower portion, the motivation being to desirably affect the trajectory of a struck ball. Further, the claimed, dimensional limitations are not deemed critical. Insofar as the claimed requirements that the club head include a hollow, metallic structure, note that Werner suggests, for example, that the club in Figure 7 is modeled after what is typically known as a "wood" and is more commonly made of metal (column 4, lines 56-57). Moreover, the teaching reference to Masghati obviates the use of hollow, metallic shell structure for the club head by noting that the use of "wood" and "wood-type" are not literally

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restricting, but may incorporate club heads shaped like traditional wooden club heads and alternatively made of metal, plastic and other materials (col. 6, lines 53-57).

***Further references of interest***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hussey and Stuff show club heads in which the teachings have been applied to clubs of the wood, iron and putter type.

***Response to Arguments***

In the arguments received 05/09/2005, the applicant contends that none of the applied prior art references to Yim, Lawton and Thompson show or suggest the claimed "wood-type" club head. Moreover, the applicant contends that the specific roll radius of the upper portion in both Yim and Werner is not specified and that the Thompson reference only shows a roll radius of 0.7 for the middle, arcuate portion of the face, not the upper portion. Last, the applicant contends that the rejection of the claims based upon Werner and applicants own disclosure of "Comparative Example" items is improper, since the comparative examples have not been realized or acknowledged as prior art by the applicant.

In response to these arguments, applicant's arguments with respect to the claims based upon the newly added language, "wood-type", have been considered but are moot in view of the new ground(s) of rejection.

Regarding the arguments directed towards the Thompson reference and the showing of a 0.7 roll radius, note that Thompson does indeed indicate that the upper

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face is not flat, but instead rounded to blend with the 0.7 roll radius at the tangent point (38). See col. 3, lines 44-49).

Regarding the arguments directed towards the alleged improper characterization by the Office of applicant's "Comparative Examples" as prior art, note that the prior art in the golf club arena in general is replete with teachings in which the language "comparative example" or "comparative sample" is recognized as referring to that which is already known. Note, for example, the patents to Yoshida ('337) and Yamashita ('295), cited here merely to explain that the language being challenged by the applicant is recognized in the art as referring to samples or examples of the prior art that is already known and that is being compared to a particular applicant's embodiments of the invention. For instance, Yoshida make use of a known, standard stainless steel as a comparative example when studying the material used by Yoshida for his invention (col. 3, lines 1-32). For instance, Yamashita acknowledges that prior comparative samples prepared in accordance with known club head designs were produced so that the Yamashita invention could be compared thereto (col. 10, lines 28-65). Thus, it is deemed that applicant's use of the language "comparative example" does indeed connote and establish that the material disclosed by the applicant as a comparative example is actually prior art.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP



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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

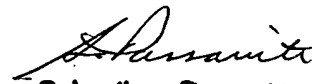
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sebastiano Passaniti whose telephone number is 571-272-4413. The examiner can normally be reached on Monday through Friday (6:30AM - 3:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich can be reached on 571-272-4415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S.Passaniti/sp  
July 22, 2005

  
**Sebastiano Passaniti**  
Primary Examiner